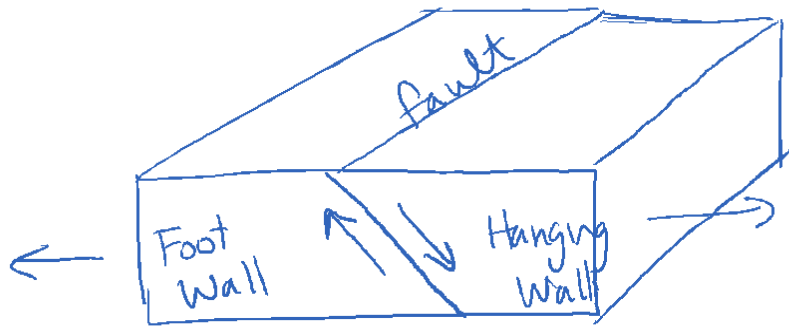


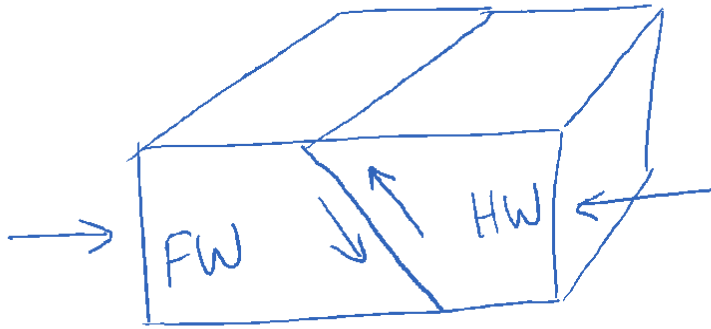
Faults

June 1, 2015 1:58 PM



Normal Fault

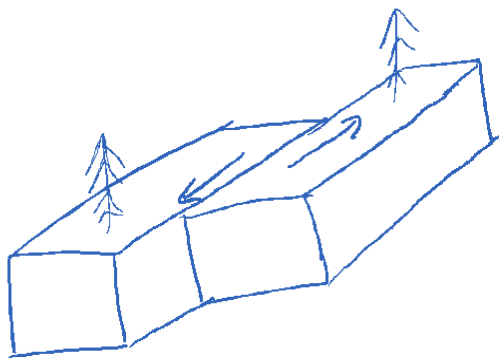
- hanging wall (HW) slides down relative to the foot wall
- occurs at diverging plate boundaries.



Reverse Fault

- HW slides up relative to FW
- converging boundaries

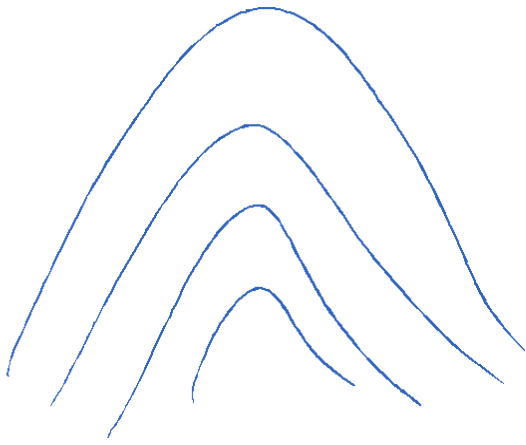
(a low angle reverse fault is a thrust fault)



Strike-Slip or Transcurrent fault

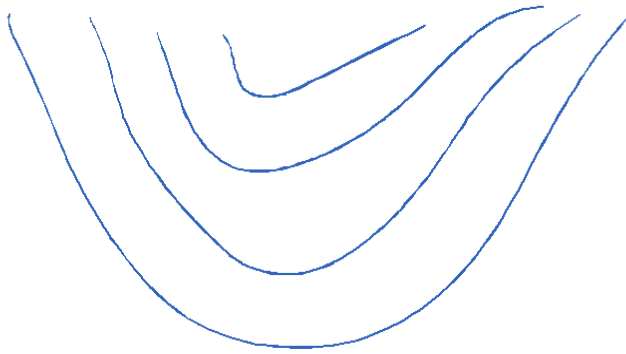
- plates move past each other laterally with no vertical motion (no up/down motion)

Folds



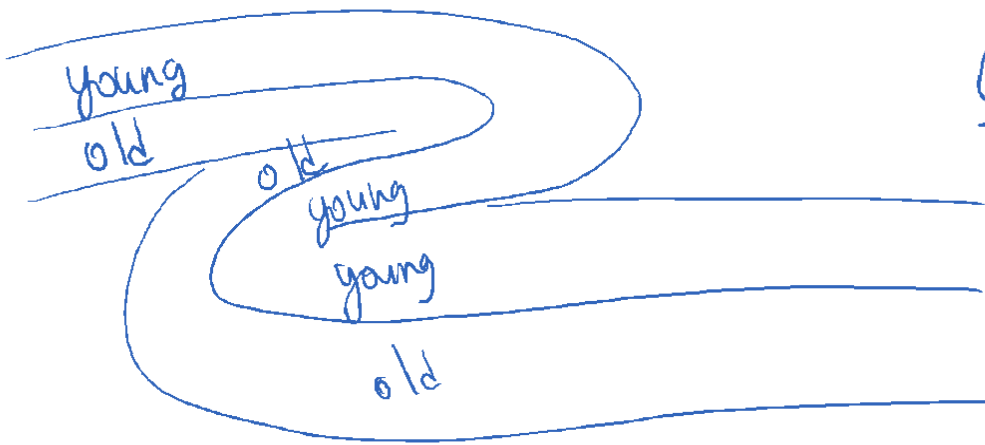
Anticline

- an upfold in the rock layers
- "ant hill"



Syncline

- a downfold in rock layers
- "smile"





Overturned fold

- ages of rocks end up out of sequence

Which way is up?

When a layer forms, one side is the top side. The layers can be overturned and eroded so that the top layer is now older than the layers under it. Then we need to realize that the layer is upside-down:

- ripple marks are on top
- raindrop prints " " "
- Shells tend to settle open-side down 
- mud cracks widest at top 
- graded bedding (heaviest particles at bottom, finest at top)

Mountain Ranges

Mt Range	Where?	How formed?
Himalayas	N. India	continental-continental collision
Appalachians	E. USA	folding
Alps	N. Italy	c-c collision
Rockies	BC/Alberta...	c-c collision
Cascades	W coast N.A.	o-c collision ← subduction
Andes	W S.A.	o-c subduction